1. A multichannel digital filter bank implemented by cascading sub-filters of the recursive type suitable for graphically equalizing electrical signals received via a communication path having minimal distortion of signal spectral characteristics including magnitude and phase nor does this method introduce additional delay to the signal comprising:

   A plurality of first order or second order digital filters, connected in a cascade fashion.

2. The multichannel digital filter bank of claim 1, wherein said digital filters are first order and have a transfer function whos equation is

$$H_i(z) = \frac{1 - az^{-1}}{1 - bz^{-1}}$$

$|a|$ and $|b|$ are < 1

a and b have the same sign.

3. The multichannel digital filter bank of claim 1 wherein said filters are second order and have a transfer function whose equation is

$$H_i(z) = \frac{1 - 2g_i \cos(p_i) z^{-1} + g_i^2 z^2}{1 - 2r_i \cos(p_i) z^{-1} + r_i^2 z^2}$$

4. A method for equalizing electrical signals received via a communication path having minimal distortion of signal spectral characteristics including

magnitude and phase wherein this method does not introduce additional delay to the signal, comprising the steps of:

Filtering the electrical signals using first order or second order digital filtering, wherein said filters are cascade connected.

5. The method of claim 4, wherein the digital filters are of the first order, comprising the steps of:

using a transfer function whose equation is:

$$H_i(z) = \frac{1 - a z^{-1}}{1 - b z^{-1}}$$

$|a|$ and $|b|$ are < 1 ; a and b have the same sign.

6. The method of claim 4, wherein the digital filters are of the first order, comprising the steps of:

using a transfer function whose equation is:

$$H_i(z) = \frac{1 - 2 g_i \cos(p_i) z^{-1} + g_i^2 z^2}{1 - 2 r_i \cos(p_i) z^{-1} + r_i^2 z^2}$$

parameters g and r of the digital filters which determine whether the filter bank enhances the signal, attenuates the signal or simply returns the indentical input signal undelayed as the output.